

[APPARATUS FOR HARVESTING ENERGY FROM MOVING FLUIDS]

Abstract

Apparatus for harvesting energy from a fluid stream which includes a rotor comprising a plurality of generally planar frames radiating from a common geometric axis. The common geometric axis is coplanar with each of the plurality of generally planar frames. Each of the generally planar frames having first and second opposed edges, each of the first opposed edges each being disposed proximate to the common geometric axis, each of the second opposed edges of the frames are disposed in distal relationship to the common geometric axis. Each of the first and second generally planar frames have an opening therein. The apparatus further includes a plurality of generally planar flappers, each of the generally planar flappers has first and second opposed edges, each of the first edges of each of the plurality of flappers is mounted by hinges to the second edge of one of said plurality of frames, each of the generally planar flappers has a part thereof that overlaps at least a part of the frame to which it is mounted when the flapper is disposed in substantially face to face abutting relationship to the frame on which it is mounted so that said flapper will not pass through said opening. In some forms of the apparatus in accordance with the present invention each flapper overlaps the

frame to which it is mounted along at least two sides thereof when the flapper is disposed in face to face abutting relationship to the frame on which it is mounted. In other forms of the present invention each flapper overlaps the frame to which it is mounted along at least four sides thereof when the flapper is disposed in face to face abutting relationship to the frame on which it is mounted.